General

Title

Statin therapy for patients with cardiovascular disease: percentage of males 21 to 75 years of age and females 40 to 75 years of age during the measurement year who were identified as having clinical ASCVD who remained on a high- or moderate-intensity statin medication for at least 80% of the treatment period.

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

Measure Domain

Primary Measure Domain

Clinical Quality Measures: Process

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of males 21 to 75 years of age and females 40 to 75 years of age during the measurement year who were identified as having clinical atherosclerotic cardiovascular disease (ASCVD) and who were dispensed at least one high- or moderate-intensity stain medication and who remained on a high- or moderate-intensity statin medication for at least 80% of the treatment period.

See the related National Quality Measures Clearinghouse (NQMC) summary of the National Committee for Quality Assurance (NCQA) measure Statin therapy for patients with cardiovascular disease: percentage of

males 21 to 75 years of age and females 40 to 75 years of age during the measurement year who were identified as having clinical ASCVD who were dispensed at least one high- or moderate-intensity statin medication.

Rationale

Cardiovascular disease is the leading cause of death in the United States. More than 85 million American adults have one or more types of cardiovascular disease (Mozaffarian et al., 2015). It is estimated that by 2030, more than 43 percent of Americans will have a form of cardiovascular disease (Heidenreich et al., 2011). In 2011, the total cost of cardiovascular disease and stroke in the United States was estimated to be $320 billion. This total includes direct costs such as the cost of physicians and other health professionals, hospital services, prescribed medications and home health care, as well as indirect costs due to loss of productivity from premature mortality.

Interventions to address cardiovascular disease are increasing: since 2000, the number of inpatient cardiovascular operations and procedures increased by 28 percent, from 5,939,000 to 7,588,000 (Mozaffarian et al., 2015). By 2030, direct medical costs for cardiovascular disease are projected to increase to nearly $918 billion (Heidenreich et al., 2011).

Statins (3-hydroxy-3-methylglutaryl-coenzyme [HMG-CoA] reductase inhibitors) are a class of drugs that lower blood cholesterol. Statins work in the liver by preventing the formation of cholesterol, thus lowering the amount of cholesterol in the blood (American Heart Association [AHA], 2014). Statins are most effective in lowering low-density lipoprotein cholesterol (LDL-C). The amount of cholesterol-lowering effect is based on statin intensity, which is classified as either high, moderate or low.

Statins are among the most commonly prescribed medications in the United States, accumulating $17 billion in sales in 2012 (Consumer Reports, 2014). According to recent blood cholesterol treatment guidelines from the American College of Cardiology (ACC) and AHA, statins of moderate or high intensity are recommended for adults with established clinical atherosclerotic cardiovascular disease (ASCVD). Many studies support the use of statins to reduce ASCVD events in primary and secondary prevention.

One meta-analysis of data from 170,000 patients in 26 randomized controlled trials found that intensive statin therapy reduces major vascular events by 15 percent (Cholesterol Treatment Trialists' [CTT] Collaboration, 2010). The study also found a 13 percent reduction in coronary death or nonfatal myocardial infarction, a 19 percent reduction in coronary revascularization and a 16 percent reduction in ischemic stroke (CTT Collaboration, 2010).

Another systematic review and meta-analysis estimates that long term statin therapy reduces the risk for ASCVD events by 25 percent to 45 percent (Law, Wald, & Rudnicka, 2003).

Research shows that adherence to statin medications is poor in the United States. In a randomized trial of medication coverage, 50 percent of patients in the control group (usual coverage) stopped using statin medications within one year of starting treatment (Choudhry et al., 2011). National Committee for Quality Assurance (NCQA) seeks to improve statin adherence in patients with cardiovascular disease and thereby reduce the risk for cardiovascular related mortality.

The ACC/AHA guidelines state "adherence to both medication and lifestyle regimens are required for ASCVD risk reduction" (Stone et al., 2013). This measure uses the proportion of days covered (PDC) to assess adherence. According to the Pharmacy Quality Alliance, a PDC threshold of 80 percent is considered highly adherent for most classes of chronic medications (Nau, 2012).

The impact of adherence on statin efficacy has been shown: each 25 percent increase in statin adherence is associated with an approximate 3.8 mg/dL reduction in low-density lipoprotein cholesterol (Ho, Bryson, & Rumsfeld, 2009). Nonadherence to statin therapy can result in an increased risk for mortality. One study found a 12 percent to 25 percent increase in the risk for mortality with nonadherence to statins after an acute myocardial infarction (Rasmussen, Chong, & Alter, 2007).

Guideline recommendations: ACC/AHA. For men and women 21 to 75 years of age with a diagnosis of clinical ASCVD, high-intensity statin therapy is recommended. If high-intensity therapy is contraindicated, or when adverse effects are present, moderate-intensity statin therapy should be used (Stone et al., 2013).

Evidence for Rationale

American Heart Association (AHA). Drug therapy for cholesterol. [internet]. Dallas (TX): American Heart Association (AHA); 2014 [accessed 2015 Jan 11].

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Ho PM, Bryson CL, Rumsfeld JS. Medication adherence: its importance in cardiovascular outcomes. Circulation. 2009 Jun 16;119(23):3028-35. [79 references] PubMed

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Nau DP. Proportion of Days Covered (PDC) as a preferred method of measuring medication adherence. Springfield (VA): Pharmacy Quality Alliance (PQA); 2012. 3 p.

Rasmussen JN, Chong A, Alter DA. Relationship between adherence to evidence-based pharmacotherapy and long-term mortality after acute myocardial infarction. JAMA. 2007 Jan 10;297(2):177-86. PubMed

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Primary Health Components

Clinical atherosclerotic cardiovascular disease (ASCVD); statin therapy; high or moderate-intensity statin medication; medication adherence

Denominator Description

Male members age 21 to 75 years and female members age 40 to 75 years as of December 31 of the measurement year who were identified as having clinical atherosclerotic cardiovascular disease (ASCVD) who had at least one dispensing event for a high or moderate-intensity statin medication during the measurement year (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

The number of members who achieved a proportion of days covered (PDC) of at least 80% during the treatment period (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A clinical practice guideline or other peer-reviewed synthesis of the clinical research evidence

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

A systematic review of the clinical research literature (e.g., Cochrane Review)

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

All HEDIS measures undergo systematic assessment of face validity with review by measurement advisory

panels, expert panels, a formal public comment process and approval by the National Committee for Quality Assurance's (NCQA's) Committee on Performance Measurement and Board of Directors. Where applicable, measures also are assessed for construct validity using the Pearson correlation test. All measures undergo formal reliability testing of the performance measure score using beta-binomial statistical analysis.

Evidence for Extent of Measure Testing

Rehm B. (Assistant Vice President, Performance Measurement, National Committee for Quality Assurance, Washington, DC). Personal communication. 2015 Mar 16. 1 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Ambulatory/Office-based Care

Hospital Inpatient

Hospital Outpatient

Managed Care Plans

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Unspecified

Target Population Age

- Males age 21 to 75 years

- Females age 40 to 75 years

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Aim

Better Care

National Quality Strategy Priority

Prevention and Treatment of Leading Causes of Mortality

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Living with Illness

IOM Domain

Effectiveness

Data Collection for the Measure

Case Finding Period

The measurement year and the year prior to the measurement year

Denominator Sampling Frame

Enrollees or beneficiaries

Denominator (Index) Event or Characteristic

Clinical Condition

Encounter

Institutionalization

Patient/Individual (Consumer) Characteristic

Therapeutic Intervention

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Male members age 21 to 75 years and female members age 40 to 75 years as of December 31 of the measurement year who were identified as having clinical atherosclerotic cardiovascular disease (ASCVD) who had at least one dispensing event for a high- or moderate-intensity statin medication during the measurement year. Refer to Table SPC-B in the original measure documentation for a list of high- and moderate-intensity statin medications.

Members are identified for the eligible population in two ways: by event or by diagnosis. The organization must use *both* methods to identify the eligible population, but a member only needs to be identified by one method to be included in the measure.

Event. Any of the following during the year prior to the measurement year meet criteria:

Myocardial infarction (MI). Discharged from an inpatient setting with an MI (MI Value Set). To identify discharges:

Identify all acute and nonacute inpatient stays (Inpatient Stay Value Set).

Identify the discharge date for the stay.

Coronary artery bypass graft (CABG). Members who had CABG (CABG Value Set) in any setting.

Percutaneous coronary intervention (PCI). Members who had PCI (PCI Value Set) in any setting.

Other revascularization. Members who had any other revascularization procedures (Other Revascularization Value Set) in any setting.

Diagnosis. Identify members as having ischemic vascular disease (IVD) who met at least one of the following criteria during both the measurement year and the year prior to the measurement year. Criteria need not be the same across both years.

At least one outpatient visit (Outpatient Value Set) with an IVD diagnosis (IVD Value Set), *or*

At least one acute inpatient encounter (Acute Inpatient Value Set) with an IVD diagnosis (IVD Value Set).

Note:

Members must have been continuously enrolled for the measurement year and the year prior to the measurement year.
Allowable Gap: No more than one gap in enrollment of up to 45 days during each year of continuous enrollment. To determine continuous enrollment for a Medicaid beneficiary for whom enrollment is verified monthly, the member may not have more than a 1-month gap in coverage.

Exclusions
Exclude members who meet any of the following criteria:

Pregnancy (Pregnancy Value Set) during the measurement year or year prior to the measurement year.
In vitro fertilization (IVF Value Set) in the measurement year or year prior to the measurement year.
Dispensed at least one prescription for clomiphene (Refer to Table SPC-A in the original measure documentation for medications to identify exclusions) during the measurement year or the year prior to the measurement year.
End-stage renal disease (ESRD) (ESRD Value Set) during the measurement year or the year prior to the measurement year.

Cirrhosis (Cirrhosis Value Set) during the measurement year or the year prior to the measurement year.
Myalgia, myositis, myopathy, or rhabdomyolysis (Muscular Pain and Disease Value Set) during the measurement year.

Value Set Information
Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the NCQA Web site to purchase HEDIS Volume 2, which includes the Value Set Directory.

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions
The number of members who achieved a proportion of days covered (PDC) of at least 80% during the treatment period

To identify numerator compliance:

Identify the Index Prescription Start Date (IPSD). The IPSD is the earliest dispensing event for any high or moderate-intensity statin medication during the measurement year. Refer to Table SPC-B in the original measure documentation for a list of high and moderate-intensity statin medications.
To determine the treatment period, calculate the number of days from the IPSD (inclusive) to the end of the measurement year.
Count the days covered by at least one prescription for statin medication during the treatment period. To ensure that days supply that extends beyond the measurement year is not counted, subtract any days supply that extends beyond December 31 of the measurement year. Refer to Table SPC-B in the original measure documentation.
Calculate the member's PDC using the following equation. Round (using the .5 rule) to two decimal places.
Total Days Covered by a Statin Medication in the Treatment Period
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Total Days in Treatment Period

Sum the number of members whose PDC is greater than or equal to 80% for the treatment period.

Note:

PDC: The number of days the member is covered by at least one statin medication prescription of appropriate intensity, divided by the number of days in the treatment period.
Treatment period: The period of time beginning on the IPSD through the last day of the measurement year.
Calculating number of days covered for multiple prescriptions:
If multiple prescriptions for different medications are dispensed on the same day, calculate the number of days covered by a statin medication (for the numerator) using the prescriptions with the longest days supply. For multiple different prescriptions dispensed on different days with overlapping days supply, count each day in the treatment period only once toward the numerator.
If multiple prescriptions for the same medication are dispensed on the same day or on different days, sum the days supply and use the total to calculate the number of days covered by a statin medication (for the numerator). For example, three prescriptions for the same medication are dispensed on the same day, each with a 30-day supply. Sum the days supply for a total of 90 days covered by a statin. Subtract any days supply that extends beyond December 31 of the measurement year. Use the drug ID provided by the NDC to determine if the prescriptions are the same or different.

Exclusions
Unspecified

Value Set Information
Measure specifications reference value sets that must be used for HEDIS reporting. A value set is the

complete set of codes used to identify the service(s) or condition(s) included in the measure. Refer to the NCQA Web site to purchase HEDIS Volume 2, which includes the Value Set Directory.

Numerator Search Strategy

Fixed time period or point in time

Data Source

Administrative clinical data

Pharmacy data

Type of Health State

Does not apply to this measure

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Desired value is a higher score

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

This measure requires that separate rates be reported for commercial, Medicaid, and Medicare product lines.

Report two age/gender stratifications and a total rate:

Males 21 to 75 years as of December 31 of the measurement year
Females 40 to 75 years as of December 31 of the measures year

Total

Standard of Comparison

not defined yet

Identifying Information

Original Title

Statin therapy for patients with cardiovascular disease (SPC): statin adherence 80%.

Measure Collection Name

HEDIS 2016: Health Plan Collection

Measure Set Name

Effectiveness of Care

Measure Subset Name

Cardiovascular Conditions

Submitter

National Committee for Quality Assurance - Health Care Accreditation Organization

Developer

National Committee for Quality Assurance - Health Care Accreditation Organization

Funding Source(s)

Unspecified

Composition of the Group that Developed the Measure

National Committee for Quality Assurance's (NCQA's) Measurement Advisory Panels (MAPs) are composed of clinical and research experts with an understanding of quality performance measurement in the particular clinical content areas.

Financial Disclosures/Other Potential Conflicts of Interest

In order to fulfill National Committee for Quality Assurance's (NCQA's) mission and vision of improving health care quality through measurement, transparency and accountability, all participants in NCQA's expert panels are required to disclose potential conflicts of interest prior to their participation. The goal

of this Conflict Policy is to ensure that decisions which impact development of NCQA's products and services are made as objectively as possible, without improper bias or influence.

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2015 Oct

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

This is the current release of the measure.

Measure Availability

Source available for purchase from the National Committee for Quality Measurement (NCQA) Web site .

For more information, contact NCQA at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org .

Companion Documents

The following is available:

> National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical update. Washington (DC): National Committee for Quality Assurance (NCQA); 2015 Oct 1. 12 p.

For more information, contact the National Committee for Quality Assurance (NCQA) at 1100 13th Street, NW, Suite 1000, Washington, DC 20005; Phone: 202-955-3500; Fax: 202-955-3599; Web site: www.ncqa.org .

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Production

Source(s)

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 1, narrative. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

National Committee for Quality Assurance (NCQA). HEDIS 2016: Healthcare Effectiveness Data and Information Set. Vol. 2, technical specifications for health plans. Washington (DC): National Committee for Quality Assurance (NCQA); 2015. various p.

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